P27377.A15

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s)	:	Takayuki WAGU et al.	Group Art Unit: 3683
Appln. No.	:	10/720,257	Examiner: Christopher P. Schwartz
Filed	:	November 25, 2003	Confirmation No.: 4101
For	:	**BRAKE FLUID PRESSURE MAINTAINING APPARATUS FOR VEHICLES**	

REQUEST FOR PRE-APPEAL BRIEF REVIEW

Commissioner for Patents
U.S. Patent and Trademark Office
Customer Window, Mail Stop AF
Randolph Building
401 Dulany Street
Alexandria, VA 22314
Sir:

This request is being filed concurrently with a Notice of Appeal and is responsive to the Final Official Action of August 3, 2006.

Reconsideration and withdrawal of the 35 U.S.C. § 103 rejections is respectfully requested in view of the following remarks.

A prima facie case of unpatentability has not been set forth and the Rejections Under 35 U.S.C. § 103(a), Are Improper

Examiner's Assertion

In rejecting claims 1-3, 8, 11-17 and 19 as being unpatentable over Alaze in view of Hall and Buschmann, the Examiner asserts that Alaze's valve unit 24 corresponds to the claimed normally-open electromagnetic valve, and presumes that Alaze's valve unit 24, although not specifically disclosed in Alaze, performs the recited relief function.

Applicants' Response

Applicants respectfully disagree and submit that the Examiner's presumption is improper, at least because Alaze does not disclose or suggest that the valve unit 24 controls changing the value of a current applied to the electrical coil 56 of the valve unit 24 (claim 1). As was noted in the Rule 1.116 Response, the electromagnetic valve of Alaze is provided with a spring 64 having a relief function. As such, the relief pressure of the electromagnetic valve is determined by a spring constant

of the spring 64. Accordingly, because the relief pressure of Alaze is determined by a spring constant, the relief pressure in Alaze is also constant. The invention, on the other hand, provides for an arrangement wherein the relief pressure is changeable, i.e., controlled in the claimed manner. Thus, Alaze doe not disclose or suggest (and cannot provide) that the valve unit controls changing of the value of a current applied to the electrical coil of the valve unit.

Examiner's Assertion

On page 3 of the instant Final Office Action, the Examiner apparently acknowledges that Alaze does not specifically disclose the claimed relief function, but asserts that Hall shows that it is well known to control the total biasing forces acting on a valve and the brake pressure levels in a wheel by changing the level of a current applied to a coil.

Applicants' Response

Applicants respectfully disagree. While it is apparent that Hall teaches a pressure relief system that utilizes a normally open valve 24 that is disposed between the isolation valve 32 and a wheel brake 20 (See Fig. 1 of Hall), Hall relates to an electronic pressure relief system for traction control which includes an isolation valve 32 which is used to enable brake fluid to pass through a conduit 18 into a reservoir 14 when pressure is created within conduit 18 by a pump 30. See, e.g., the last paragraph of page 5 of Hall. Although Hall's isolation valve 32 is electromagnetically actuated based on the application of a current, the isolation valve 32 of Hall, while apparently participating in the control of the brake fluid pressure applied to Hall's wheel brake 20, does not function like the invention. Instead, the brake fluid pressure in Hall is utilized to merely activate traction control, i.e., in the case of uncontrollable spinning when the vehicle fails to hold proper contact with the road surface. The invention, on the other hand, utilizes pressure control when a vehicle stop condition is detected and when the vehicle is on a sloping road. Hall simply does not disclose or suggest that the normally open valve 24 controls changing the value of a current applied to an electromagnetic coil of the valve 24. As such, the combination of Alaze and Hall fails to disclose or suggest the combination of features recited in at least claim 1. Further, as Hall's isolation valve 32 performs a function disparate from Alaze's valve unit 24 (i.e., relieving pressure in a conduit versus relieving pressure on a wheel brake), Applicants respectfully submit that it would not be obvious to combine the features of these valves in the manner suggested by the Examiner. Finally, Buschmann fails to overcome the above-noted deficiencies of Alaze and Hall at least for the reasons noted on pages 16-18 of the Rule

1.116 Response filed on November 2, 2006, which is hereby incorporated by reference.

Examiner's Assertion

The Examiner believes the recited means for reducing a fluid pressure of the wheel brake by adjusting an attracting force between a movable core and a fixed core of a normally-open electromagnetic valve when the brake fluid pressure of the wheel brake is higher than an attracting force of a given value (claim 14) is taught by the combination of Alaze, Hall and Buschmann.

Applicants' Response

Applicants respectfully disagree. The Examiner has simply not identified the recited "means" in any of the applied documents. Again, Alaze does not disclose or suggest that the controlling the changing of the value of a current applied to the electrical coil 56 of the valve unit 24. Furthermore, Hall relates to an electronic pressure relief system for traction control which includes an isolation valve 32 which is used to enable brake fluid to pass through a conduit 18 into a reservoir 14 when pressure is created within conduit 18 by a pump 30. See, e.g., the last paragraph of page 5 of Hall. While it is true that Hall's pressure relief system also includes a normally open valve 24, which is disposed between the isolation valve 32 and a wheel brake 20, and that Hall's isolation valve 32 is electromagnetically actuated based on the application of a current, the isolation valve 32 of Hall, while apparently participating in the control of the brake fluid pressure applied to Hall's wheel brake 20, does not function like the invention. Finally, Buschmann merely discloses a system for applying brake pressure when the vehicle is parked and turned off, and is entirely silent with regard to a means for reducing a fluid pressure of the wheel brake by adjusting an attracting force between a movable core and a fixed core of a normally-open electromagnetic valve when the brake fluid pressure of the wheel brake is higher than an attracting force of a given value, wherein the normally-open electromagnetic valve is capable of the following function: when it is detected that the vehicle is stopped, an electromagnetic coil of the normally-open electromagnetic valve is energized and the normally-open electromagnetic valve is closed.

Examiner's Assertion

The Examiner also believes that a combination of Alaze, Hall and Buschmann discloses or suggest that the normally-open electromagnetic valve is capable of the following function: when it is detected that the vehicle is stopped, an electromagnetic coil of the normally-open electromagnetic valve is energized and the normally-open electromagnetic valve is closed (claim 14).

Applicants' Response

Applicants respectfully disagree. The Examiner has simply not identified any valve in any of these documents which utilizes the recited function. The Examiner's attempt to combine valves which function differently simply does not result in a valve which functions in the recited manner.

Examiner's Assertion

On page 4 of the Office Action, the Examiner broadly asserts that Alaze's device, as modified by Hall and Buschmann, is capable of functioning as recited in claim 20.

Applicants' Response

Applicants respectfully disagree. Again, Alaze fails to disclose or suggest that the current supplied to the valve unit 24 is adjusted by an adjusting means, that brake fluid pressure of the wheel brake 14 is lowered to a given value under the control of such adjusting means, or that a value of the current applied to the valve unit 24 is lowered to reduce an attracting force acting on the armature 59. Nor can the Examiner do so because, as discussed above, the electromagnetic valve of Alaze is simply not adjustable as recited in claim 20.

Again, Hall's isolation valve 32 is not a normally open electromagnetic valve and does not function in the same way as the invention. Furthermore, Hall fails to disclose or suggest that a current applied to the normally open valve 24 is adjusted by an adjusting means. Hall also fails to disclose that brake fluid pressure of the wheel brake 20 is lowered to a given value under the control of an adjusting means, or that a value of the current applied to the normally open valve 24 is lowered to reduce an attracting force on a movable coil. To the contrary, there is no adjustment whatsoever of the normally open valve 24 in Hall and the Examiner has not demonstrated otherwise. Furthermore, even assuming for the sake of argument, that Hall discloses an isolation valve that may be adjusted, the Examiner cannot ignore the fact that the isolation valve in Hall is not configured to adjust a brake fluid pressure in the wheel brake on an ascending or descending slope by adjusting a current to an electromagnetic valve disposed between a movable core and a fixed core. Accordingly, Hall cannot be read to disclose or suggest at least these recited features.

Buschmann fails to overcome the above-noted deficiencies of Alaze and Hall for the reasons noted on pages 16-18 of the Rule 1.116 Response. Thus, the combination of Alaze, Hall and Buschmann fails to disclose or suggest a means for adjusting a brake fluid pressure in a wheel brake on an ascending or descending slope by adjusting a current to an electromagnetic valve disposed

between a movable core and a fixed core to increase or decrease an attracting force between the movable core and the fixed core, where after the brake fluid pressure of the wheel brake is lowered to a given value under the control of the adjusting means, a value of the current applied to the electromagnetic valve is lowered to reduce the attracting force acting on the movable core, as recited in independent claim 20.

Examiner's Assertion

The Examiner also alternatively rejected claims 1-3, 8, 9, 14-17, 19 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Waku et al. in view of Hall and Buschmann, and claims 4-7, 10-13, 18, 21 and 23 under 35 U.S.C. § 103(a) as being unpatentable over Waku in view of Hall and Buschmann, and further in view of Akamatsu.

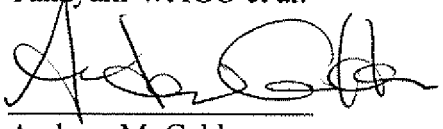
Applicants' Response

Applicants respectfully traverse these rejections. In the Office Action, the Examiner asserts that "due to the strong similarity between JP '731 and applicants design... the claimed features are believed to be readily apparent from the drawings of this reference." The Examiner has provided Applicants only with an English language translation of Waku's Abstract. As such, the Examiner's mere unsupported assertion of what is taught by Waku is insufficient to establish a *prima facie* case of obviousness. For this reason, as well as those asserted on pages 21-23 of the Rule 1.116 Response (hereby expressly incorporated by reference), Applicants submit that this basis of rejection is improper. For example, the Abstract and drawings of Waku fail to teach or suggest at least the above-noted features of claims 1, 14 and 20.

CONCLUSION

Reconsideration of the Final Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

Respectfully submitted,
Takayuki WAGU et al.



Andrew M. Calderon
Reg. No. 38,093

December 22, 2006
GREENBLUM & BERNSTEIN, P.L.C.
1950 Roland Clarke Place
Reston, VA 20191
(703) 716-1191